



Improved Transaction Processing Capabilities

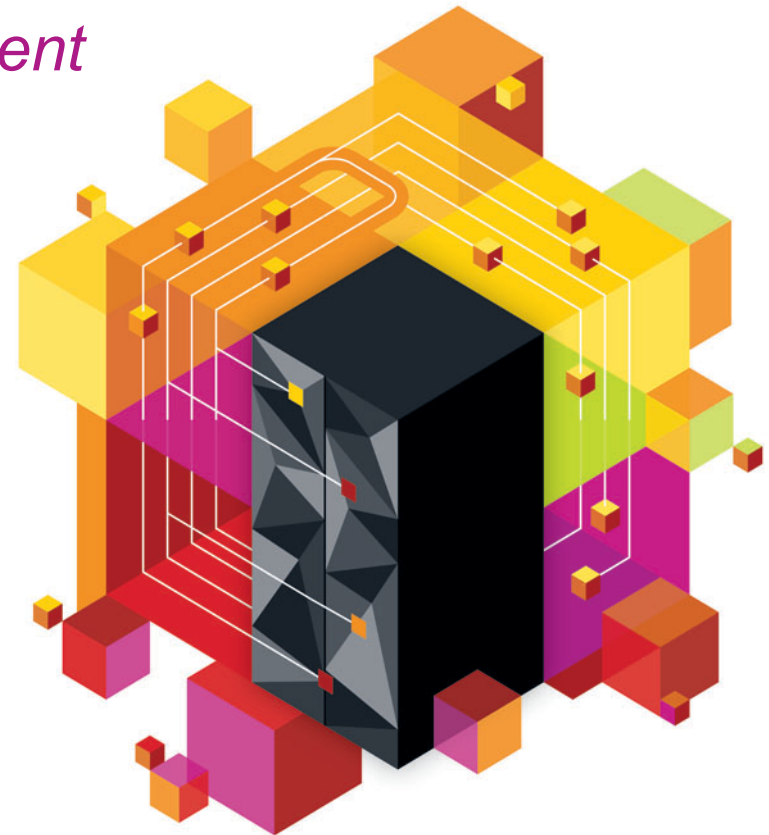
*Offering Operational Efficiency and
Service Agility with Cloud Enablement*

Michael Perera

Vice President

CICS®, TPF, and WebSphere® on
System z

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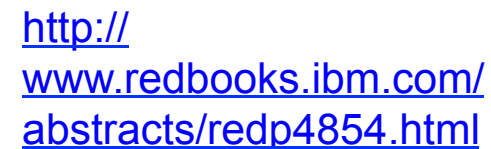
Agenda

- The changing face of Transaction Processing
- Operational Efficiency
- Service Agility
- Transaction Processing - Where Next?



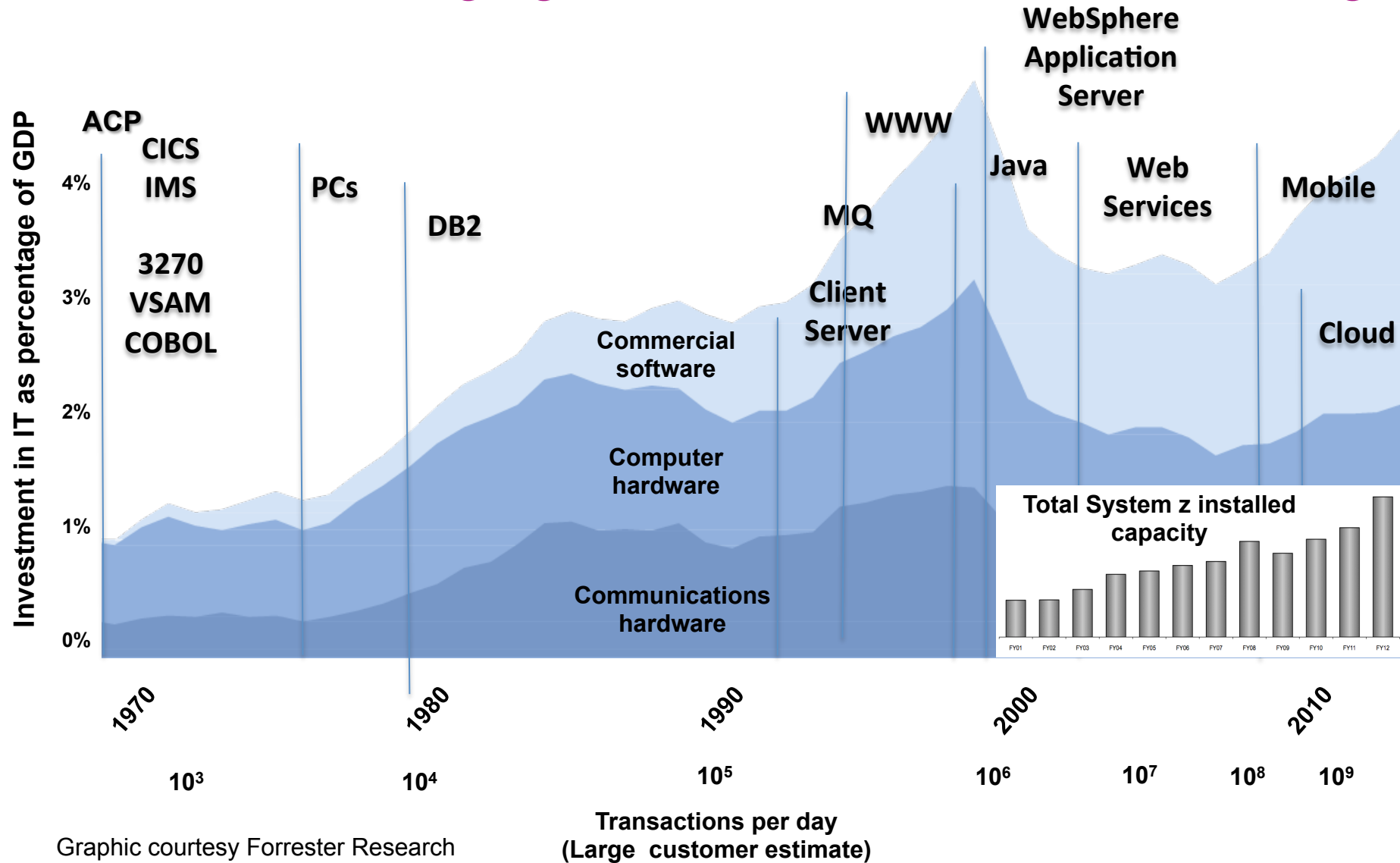
“I am absolutely obsessed with the concept of Transaction Processing because it is the very essence of every company on earth. **A business is not in business unless it is successfully processing transactions of some kind.** IBM has been investing in, leading, and inventing Transaction Processing technology for as long as there has been programmable computing. It is no coincidence that **the world’s economic infrastructure largely rests on IBM technology**, such as mainframes, and fundamental financial activity occurs through CICS, IMS, and WebSphere transaction engines.”

IBM Senior Vice President and Group Executive,
Software and Systems



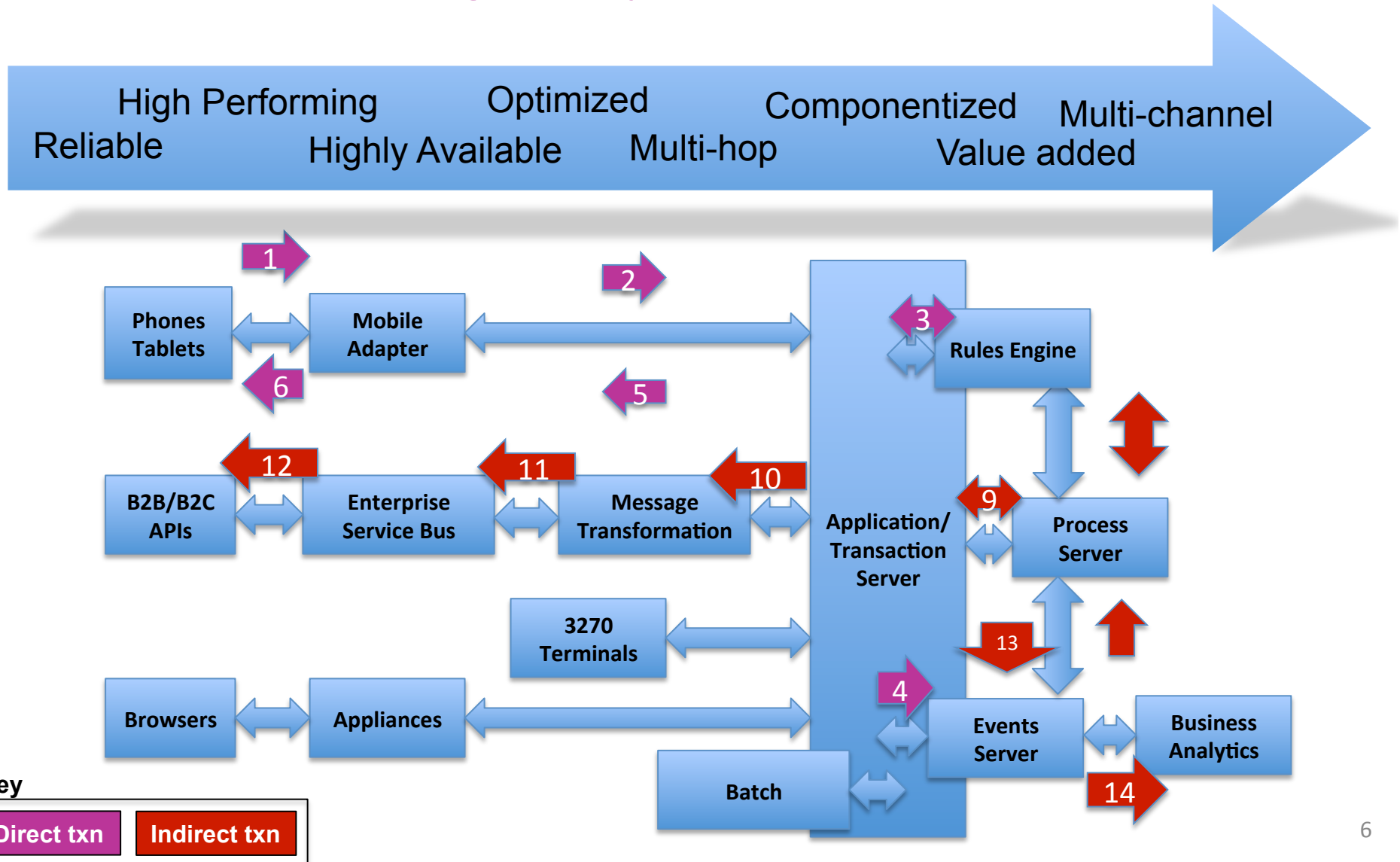


The Changing Face of Transaction Processing





The Growing Lifecycle of Modern Transactions





Operational Efficiency

Do you need to drive down costs and improve efficiency?



What if you could self-provision environments in seconds?

“The creation of a private cloud enables the rapid, seamless deployment of new computing resources “

Handelsbanken

What if you could achieve cost savings through consolidation?

“Amazed System z was so small quiet – unlike our Intel® installation”



What if you could reduce cost and risk through automation?

“WebSphere software enables us to modernize our batch application landscape”

Major Chinese Bank

What if you could reduce the need for planned downtime?

“Lifeline reduced planned outage from 6 hours to 20 minutes”

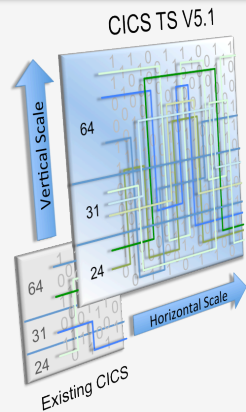


CICS 5.1

Driving Operational Efficiency



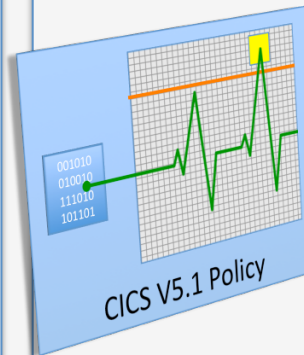
Greater Capacity



Scalability improvements drive 2-3x more workload per region with improved efficiency



Managed Operations



New autonomic policy-based management to reduce risk and provide more platform control



Increased Availability



Upgrade without a restart of z/OS
Refresh SSL certificates without a CICS restart



Deeper Insight



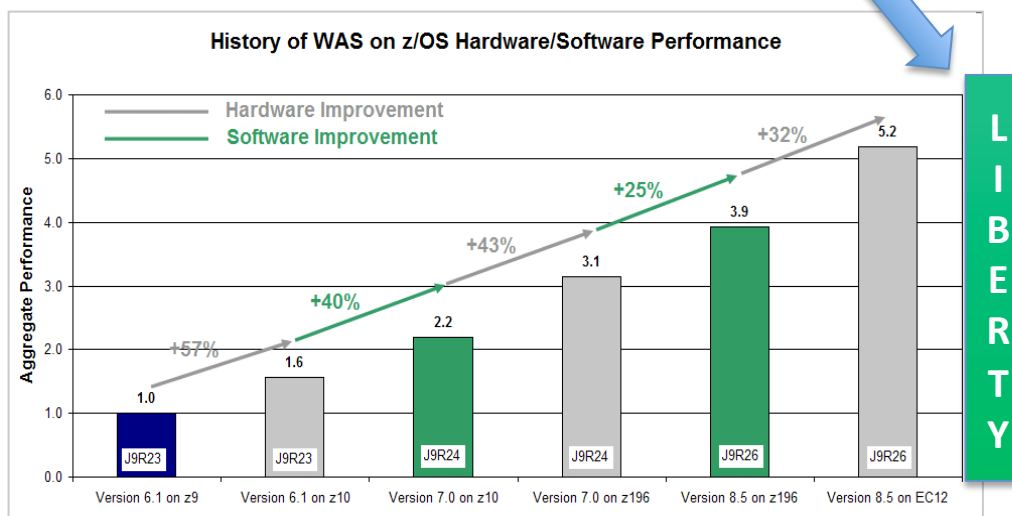
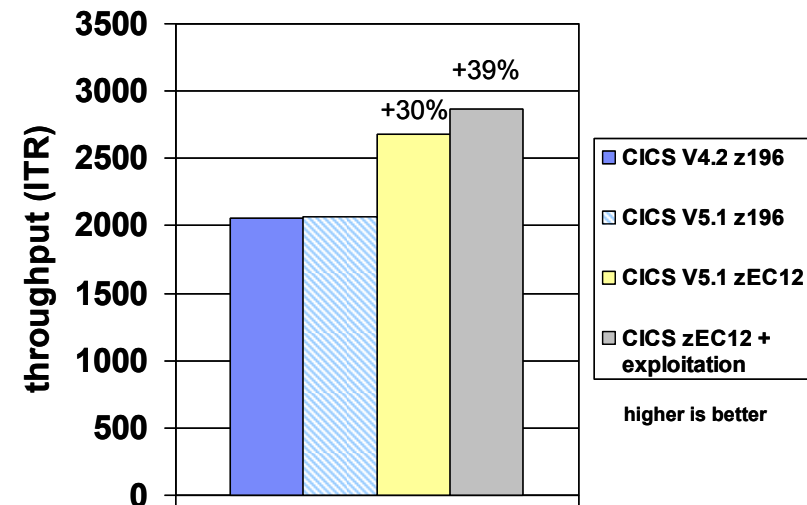
Improve decision making and audit readiness



Greater Capacity *Performance keeps getting better*

zEC12 Enhanced Performance

- CICS +39%
- ODM +38%
- Java +60%
- WAS with Liberty Profile +71%



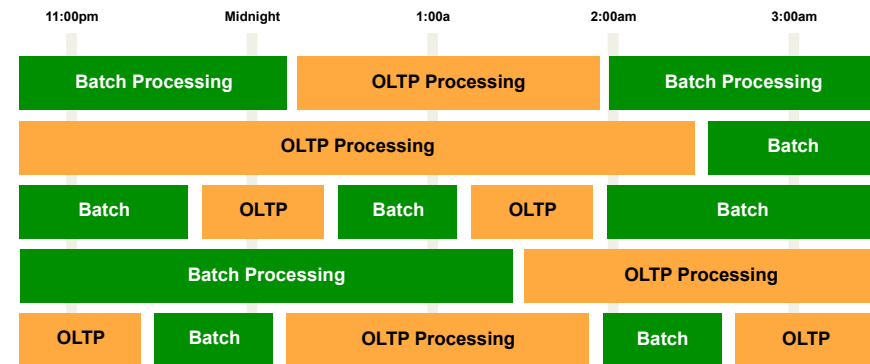
“We have seen 20% to 30% growth in our WebSphere workload each year, but thanks to the zAAP, we are able to lower the cost about 15% each year.”
- Svenska Handelsbanken



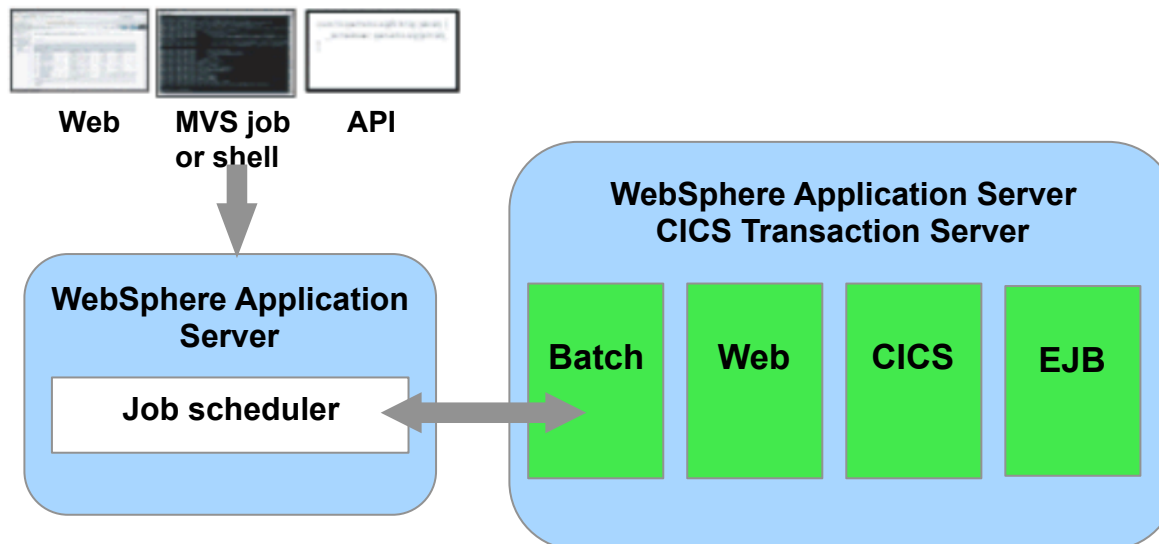
Managed Operations

Batch Modernization with WebSphere and CICS

- Batch modernization at your pace
- Leverage existing assets
- Integrate with current batch processes
- Concurrent OLTP and batch workloads on a common infrastructure.



Concurrent OLTP and batch workloads



"Enables us to modernize our batch application landscape ... integrate existing applications ... smooth migration path ... reliable and scalable platform." Swiss Re



Increased Availability

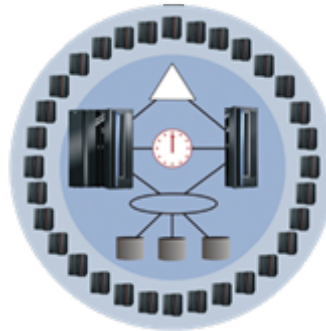
Delivering continuous availability at the application level

Single System z



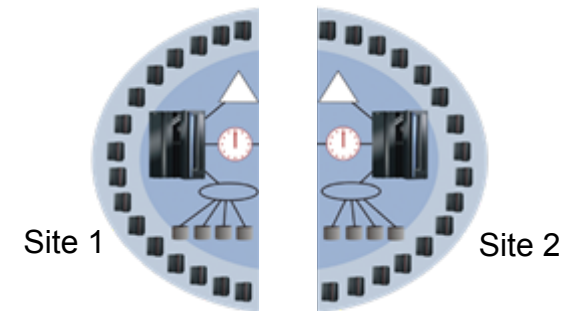
Where mean time between failure is measured in decades

Multiple System



Designed for application availability of 99.999%

Multiple Data Centers



Industry-leading solution for disaster recovery

CICS Transaction Server V5.1

Reduces planned and unplanned outages, & prepares for GDPS Active/Standby operations

WebSphere Application Server for z/OS V8.5

Enhanced resiliency reduces planned outages, and responds to problems before end users suffer outage

IBM Multi-site Workload Lifeline V1.1

Major Chinese bank reduces planned outage from 6 hours to 20 minutes



Increased Availability

Problem Determination Tools find and resolve abends

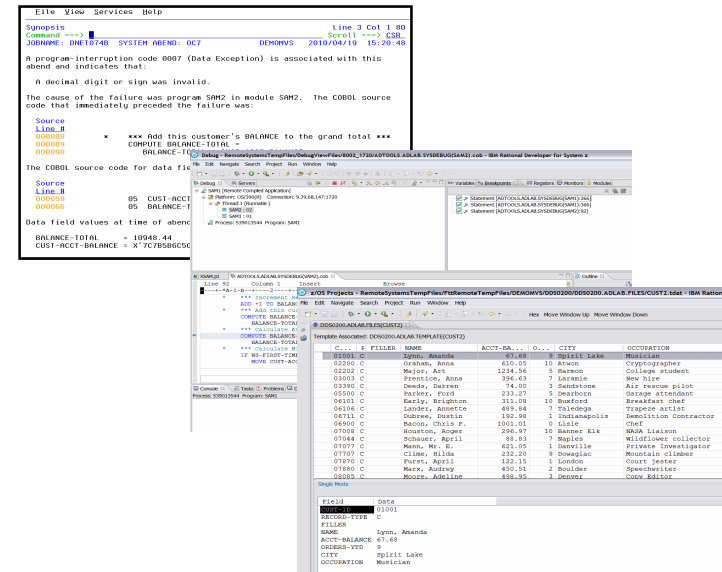
How much do your outages cost?

\$90K per hour – Media

\$6.5M per hour – Brokerage

\$? per hour – Your business?

How long does it take you to find and fix a problem?



IBM Fault Analyzer captures mini dump and analyzes it

IBM Debug Tool pinpoints the fault - bad data

IBM File Manager identifies and updates data

[Branham Group White Paper – IBM CICS Tools Discovery & Optimization for the Next Generation](#)

"We've increased programmer productivity by 10 percent and cut development costs...we've experienced significant decreases in the number of transaction failures."

- Roberto L De Hoz, manager mainframe support, HSBC



Deeper Insight

How much does poor insight cost?

“CICS DA discovery reduces learning times from weeks to hours.” Jean Paul Caron, Independent CICS Consultant

**“By making only one major application threadsafe
we were able to save 700 MIPS”** *Major US Bank*

“CICS Performance Analyzer reduced the time to resolve even the most major issue by 75%” Managed Healthcare Company

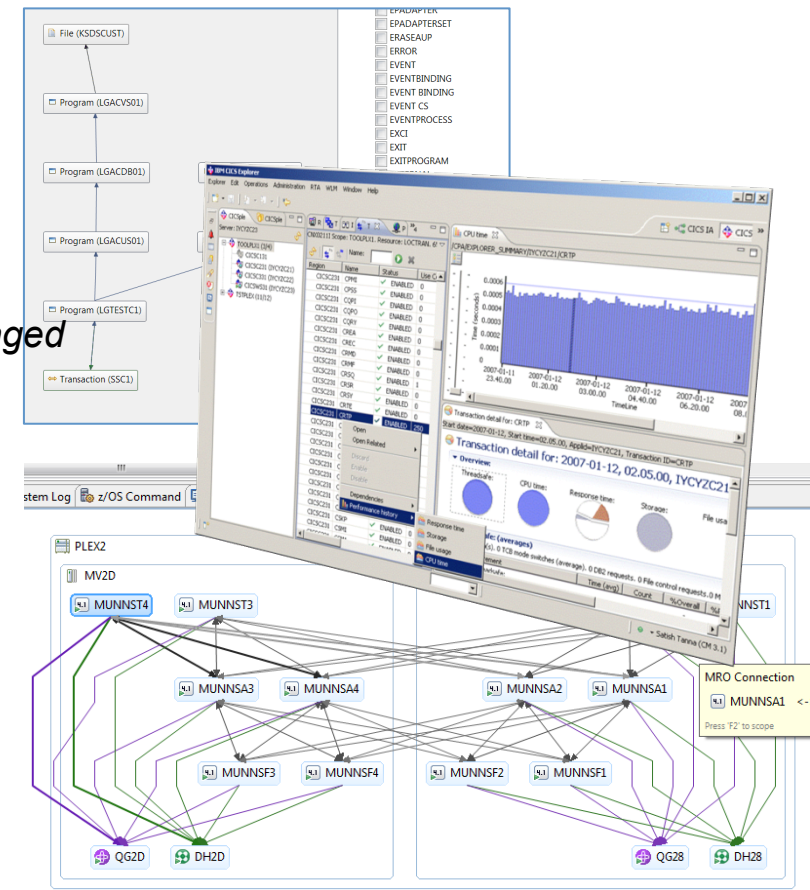
How well do you know your environment?

CICS Deployment Assistant discovers and visualizes your real CICS environment

CICS Interdependency Analyzer identifies application relationships

CICS Performance Analyzer will get to the **root cause** of performance issues

CICS Configuration Manager shows what was changed





Service Agility

Do you need to deliver faster and with greater agility?



IMMIGRATION & CHECKPOINTS AUTHORITY

**What if you could
adapt agile services
in hours?**

Decision Management
*improves visibility and
gives back control to
the business domain*



**What if you could
enable new services
leveraging existing
assets?**

***Leverage SOA to
rapidly enable new
revenue streams &
services***



**What if you could
build rich web and
mobile experiences
for critical
applications?**

**“CICS has helped us put
timely information in front
of the student in a mobile
world.”**

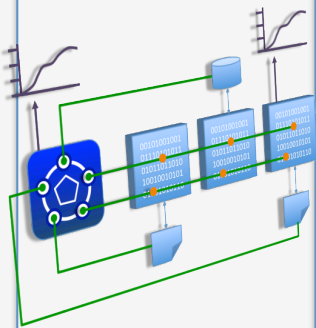


CICS 5.1

Increasing Service Agility



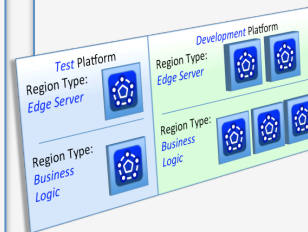
First-class Applications



Introducing a new Application concept for ease of management and deployment of existing resources



First-class Platforms



Introducing a new Platform concept for ease of managing, deploying, and scaling the CICS runtime platform



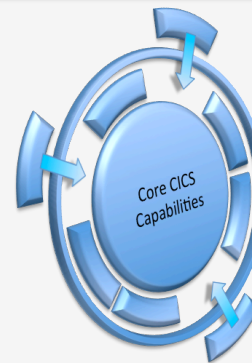
Modern interfaces



A new web container for running servlet/JSP frontends directly in CICS



Foundational Enhancements



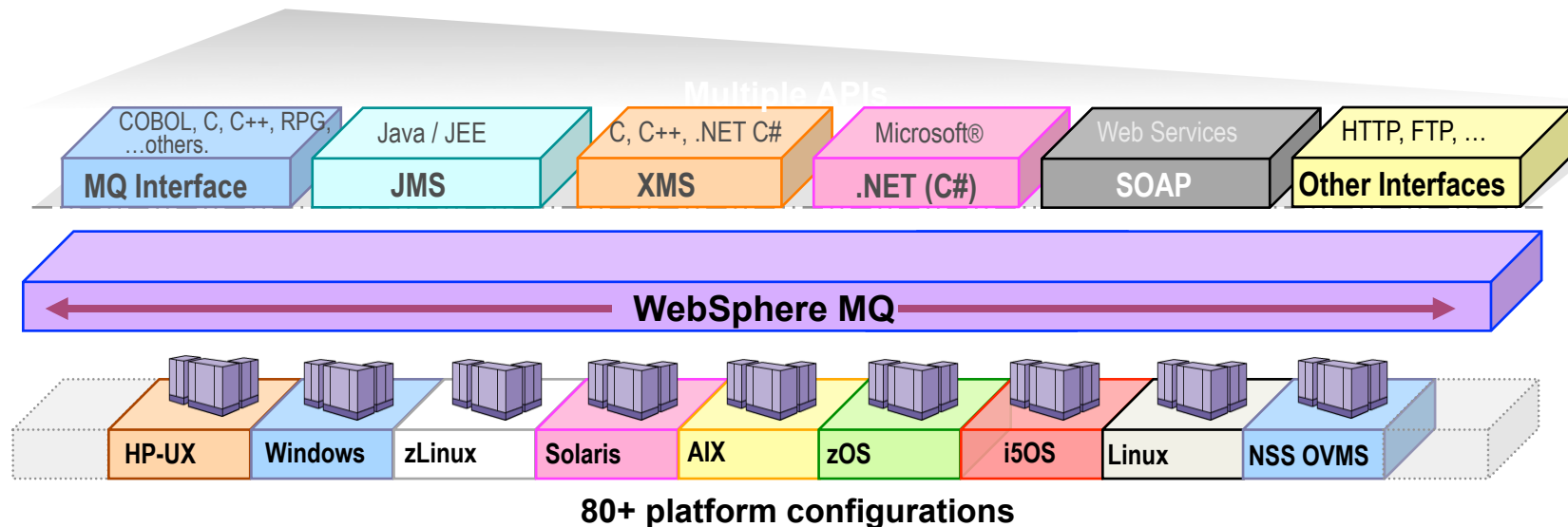
*A continued focus on the foundational improvements.
Over 125 customer feature requests*



Agile Applications

Reuse and enable application connectivity

- Connect to **anything**
- Connect from **anywhere**
- Connect with **agility**





Agile Applications

Manage Decisions at the Speed of Business

1

- Customer searches for a price
- Insured members submit claims
- Brokers make trades

requests



Executable Binaries

response



Determine pricing & bundling



Approve filed claim



Detect fraudulent trades



Decision Logic

Business Rules

Why Decisions Change?

- Grow customer base
- Increase customer satisfaction
- Comply with regulatory changes

Business Rule Updates

- New pricing promotion (*monthly*)
- Updated claims policies (*quarterly*)
- Tightened regulations on trading (*annually*)



2

Major system updates are not required for decision logic changes



Agile Platforms

Simplified deployment with WebSphere Application Server Liberty Profile

- Simplified and reduced configuration
- Dynamic server profile determined by application at a fine-grained level
- Dynamic runtime – add features without restart
- Small memory footprint (~75MB)
- Optional z/OS qualities of service
- **New:** CICS 5.1 Java web container

Up to **30%**
improvement in
throughput over WAS
8.5 running light web
apps

< 5 seconds
for server startup time



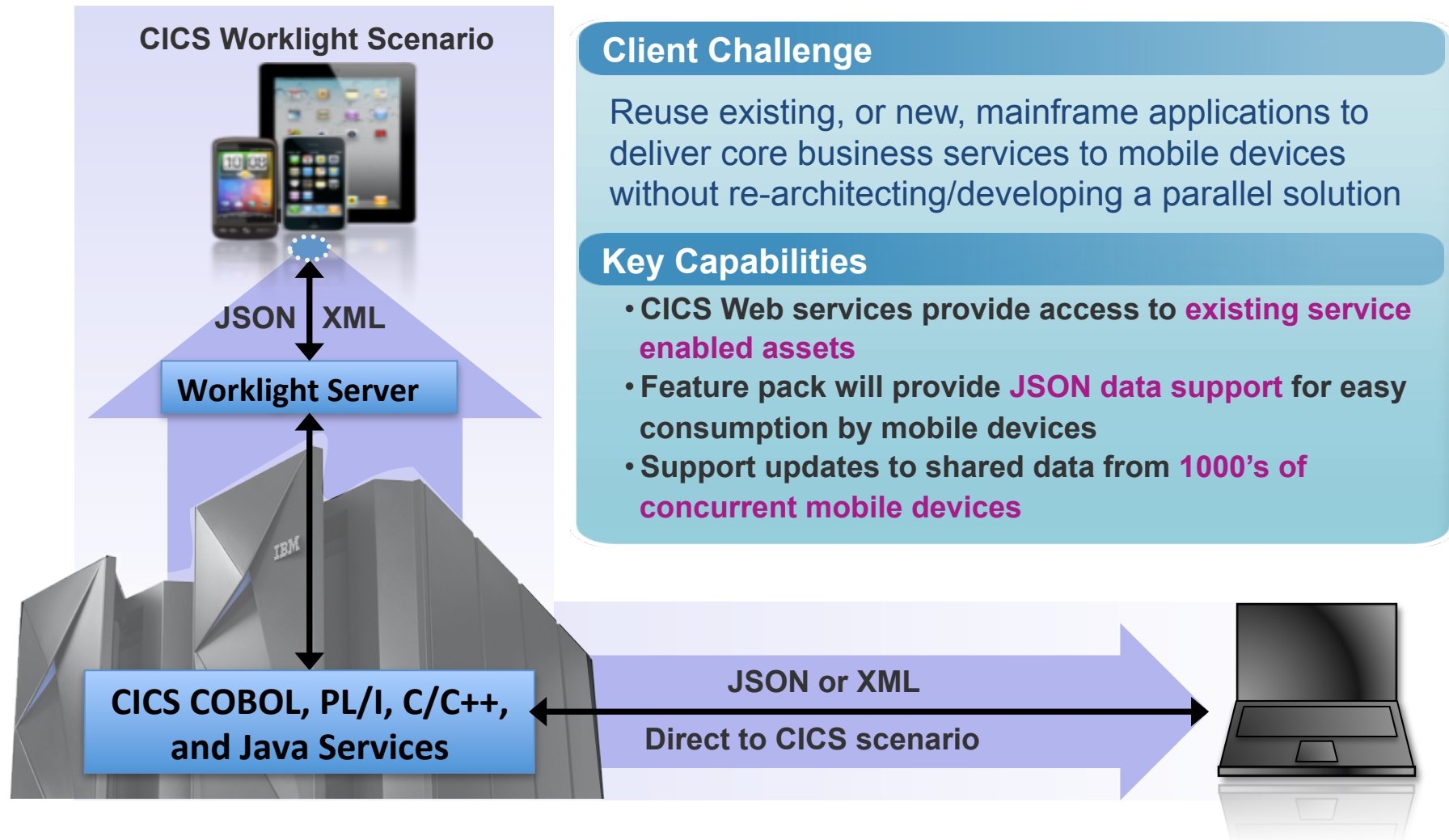
“With Liberty profile, developers can develop, assemble, test and publish web applications to a lightweight runtime which has fidelity to the full WAS profile.” Aviarc Global, Ltd



Modern Interfaces

Extend the reach of enterprise applications and services

Create new business opportunity by mobile enabling core business service





Modernizing Development of CICS *Leveraging the Rational Life Cycle Mgmt Tools*

Request For Enhancement (RFE) – fully connected to our Rational infrastructure

- Link customer requirements to code delivered

Rational Requirements Composer (RRC) – newly adopted in 2012

- Requirements elaboration for Features and Use Cases – Strategy and planning
- Code, test, documentation designs – delivery of function

Rational Team Concert (RTC) – full adoption of capabilities

- Project management – Tracking work from creation to delivery
- Defect management
- Source code management

Rational Developer for System z – 100% usage by developers

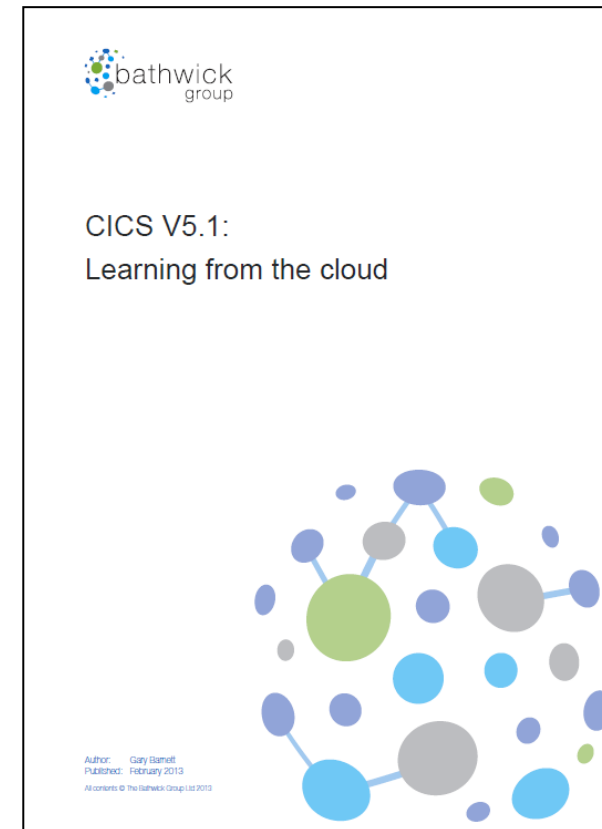
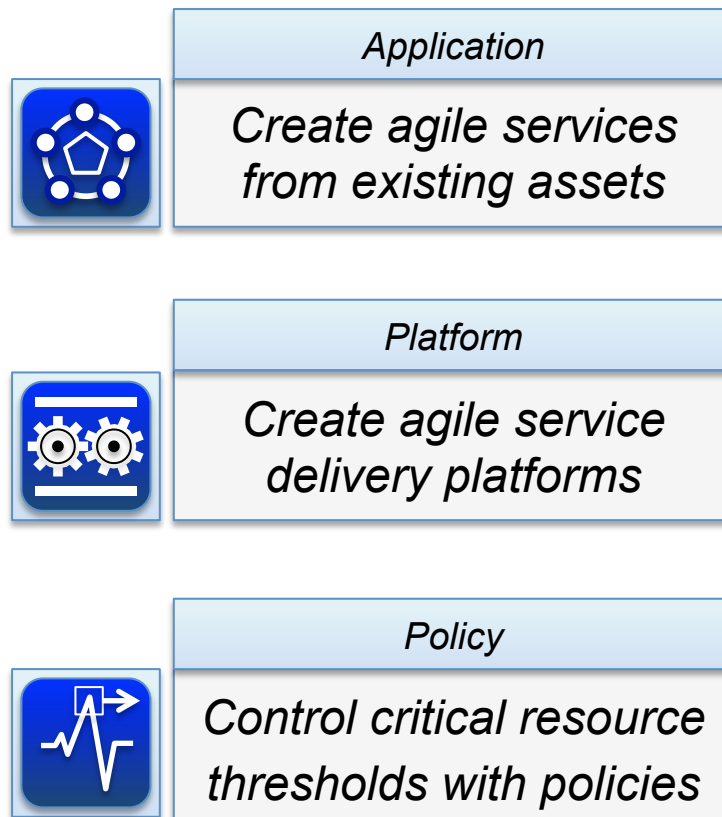
- Development environment for code changes

Rational Quality Manager – newly adopted in 2012

- Test execution tracking



The Road to Cloud Enablement



“CICS offers a highly reliable, extremely high-performance environment for the most demanding workloads. That said, by taking the best bits from the world of cloud computing IBM is bolstering the relevance of, and the business case for, CICS and z/OS.” - CICS V5.1: Learning from the Cloud, Bathwick Group <http://tinyurl.com/BathwickanalystpaperV5-1>

The Future of Transaction Processing

How will you think about your next new application



ENVISIONING THE FUTURE IS NOT THE SAME AS BUILDING IT



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